

IN THE SPECIFICATION:

Please amend paragraph [0005] as follows:

[0005] Wire bonding and TAB attachment techniques generally begin with attaching a semiconductor die by its back side or its active surface to the surface of a carrier substrate with an appropriate adhesive, such as an epoxy or silver solder, a liquid or gel adhesive, a ~~double-sided~~ double-sided adhesive-coated tape segment such as Kapton®, a polyimide. In wire bonding, fine wires of gold, aluminum or ~~allows~~ alloys thereof, are discretely attached to bond pads on the semiconductor die and then extended and bonded to corresponding terminal pads on the carrier substrate. A dielectric encapsulant such as a silicone or epoxy may then be applied to protect the fine wires and bond sites. In TAB attachment, ends of metal traces carried on a flexible insulating tape such as a polyimide are attached, as by thermocompression bonding, directly to the bond pads on the semiconductor die and corresponding terminal pads on the carrier substrate.

Please amend paragraph [0035] as follows:

[0035] According to the present invention, the dielectric filler material 140 coats and/or encapsulates at least a portion of the wire bonds 128 proximate the bond pads 126 on the active surface 122 of the semiconductor die 120 and within opening 116. The curing or hardening of dielectric filler material 140 surrounding the wire bonds 128 provides a stabilizing effect to the wire bonds 128 to help prevent movement thereof and wire sweep between adjacent wire bonds 128. Moreover, according to the present invention, by limiting the initial use of adhesive material as much as possible so as to utilize only the minimum size, number and arrangement of discrete adhesive elements 130 necessary to secure semiconductor die 120 to carrier substrate 110 for wire bonding and to provide the gap or standoff 132, any moisture in the adhesive element 130 is also limited. The dielectric filler material 140 may then be introduced to fill the gap or standoff 132 and provide a permanent, secure and inflexible bond between the semiconductor die 120 and carrier substrate 110, wherein any problems due to moisture being trapped therebetween are substantially eliminated. Exemplary, suitable filler materials ~~T693-~~

~~R3001EX-V3~~ T693-R3001EX-V3 and T693-R3002EX-V3, both offered by Nagase Chemtex.

Also, utilizing dielectric filler material 140 to bond the semiconductor die 120 to the carrier substrate 110 is much more cost effective, in comparison to utilizing adhesive element or elements as a primary bonding agent. It should be noted that the particle size of the dielectric filler material is generally substantially smaller than particle size of filled polymer encapsulants used, for example, in transfer molding, enhancing flow of the dielectric filler material past and surrounding wire bonds 128.

Please amend paragraph [0037] as follows:

[0037] As shown in FIG. 3, semiconductor assembly 100 may be completed in a ~~flip-chip~~ flip-chip configuration with solder balls, conductive or conductor-filled epoxy bumps, pillars or columns or other discrete conductive elements 160 formed on the second surface 114 of carrier substrate 110 and electrically connected to conductive pads or terminals 118 by conductive traces (not shown), as well known in the art.